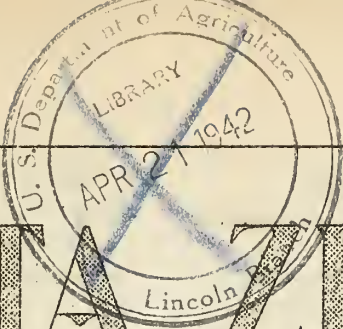


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Dear Cooperator:

Supervisors from 26 Soil Conservation Districts Hold Annual Meeting

The South Dakota Association of Soil Conservation Districts had their fourth annual meeting at Pierre on February 9 and 10. This meeting was attended by representatives from 26 soil conservation districts and many state and federal agencies. Previous meetings had been held at Mitchell, Huron, and Pierre during the last three years.

E. B. Dwight, chairman of the Board of Directors was in charge of the two-day session. Panel discussions, participated in by members of district supervisors boards, were held the first day to give districts an opportunity to exchange experiences. These reports were summarized by John V. Hepler, Director of Extension.

Frank Feser, vice-chairman, acted as toastmaster at the banquet held the first evening. Speakers at this banquet were Harlan J. Bushfield, Governor of South Dakota, and A. M. Eberle, Dean of Agriculture at South Dakota State College.

The Association held their business session the second morning and divided into committee groups to discuss legislation, education, finances, and operations. Speakers the second day included H. F. Tagge, Area Conservationist, J. W. Cluett, Director Fish and Game Department; Millard Scott, Director Rural Credit Board; Ross D. Davies, State Coordinator; Earl Hammerquist, Commissioner of School and Public Lands, and A. E. McClymonds, Regional Conservator.

E. B. Dwight of Springfield was re-elected as chairman of the Board of Directors and Frank Feser of Amherst was re-elected as vice-chairman and J. M. Heimer of Dupree as treasurer. Other members of the board of directors are Horace M. Wagner, Reliance; Henry N. Abild, Vermillion; Clyde H. Sargent, Clearfield; and J. J. Cowan, Webster. Ralph E. Hansen, Extension Soil Conservationist, was re-elected by this group to act as secretary.

This group is already making plans for activities. During 1942 they intend to sponsor Conservation Week in South Dakota.

Now 26 Districts in State; Have
Been 18 Increases to 7 Districts

There are 26 districts now organized in South Dakota with a land area of 6,422,360 acres of which 1,522,717 acres are additions made to original boundaries in 7 districts on 18 occasions. A referendum has been authorized on a proposed district in Hand county and a hearing is scheduled February 17 on a district in western Beadle county.

The second addition to the Silver Creek district has been requested to include the balance of Sanborn county in the district. Petitions requesting additions in Pennington, Sioux-Brule, Clay, Lincoln, Clearfield-Keyapaha districts are scheduled to be filed with the State Committee soon. Preliminary Educational work is underway at present in Turner county.

Ten districts were organized in 1941, the largest number so far in any one year.

There are 632 districts in the United States. South Dakota ranks seventh in total districts, being exceeded by the states of Arkansas, Mississippi, Texas, Oklahoma, Nebraska, and Wisconsin. Of the 72,000 farmers in the state, 12,000 live within boundaries of organized districts.

Since publication of the last Zephyr in November four districts have been organized. Referendums were all highly favorable. The four are:

Gregory County, 87,066 acres.

Supervisors: Noble Inglett, George Harding, and Orville Stinton of Lucas and G. B. Cool and Ernest Leonard of Burke.

Hamill (Tripp county), 148,141 acres.

Supervisors: H. E. Covey, Ray F. Nelson, and Joe Dvorak of Hamill and J. E. Broline and Henry A. L. Thomson of Winner.

Northeast Codington County, 121,068 A.
Supervisors: J. R. Michaels and John Schoep of South Shore and Harry Schmeling, T. A. Zemlicka, and Harry Stein of Watertown.

Day County, 331,314 acres.

Supervisors: J. J. Cowan and John Reetz of Webster, Mancel W. Peterson, Waubay, Edwin C. Lee, Pierpont, and John Denholm, Andover.

George McManus, Lyman, Horace Wagner, Reliance, and Arthur Eymmer, Reliance, were recently re-elected as supervisors of the American Creek District for three-year terms.

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Immense Amount of Conservation
Work Has Been Completed in S. D.

A few highlights of activities within districts to date shows establishment of 22,800 acres contour cultivation, 30,900 acres grass plantings, 43,600 acres strip cropping, 98,500 acres adapted rotations; 73,100 acres sub-surface tillage; 3,771 acres tree plantings, 1415 acres contour furrows, 465 water storage structures, 3,457 acres flood irrigation, and 599,800 acres properly managed grazing land.

Combined treatment was applied on 681,500 acres of land in the 2,327 farm plans in effect of which 1,224 were prepared in 1941. Basic grass resource surveys were made on 1,445,895 acres of range land, and conservation surveys, including soils, on 3,569,000 acres were made.

* * * * *

George T. Myers of the Flk Creek District has demonstrated that the increased moisture retained by contour tillage pays big dividends in wheat yields. In 1941 a 57-acre contoured field produced 35 bushels of wheat an acre contrasted with an average 17-bushel yield his neighbors received.

Pasture Management Proves Successful
on Clay County Farm

Philip Odeen, a cooperator with the Clay County Soil Conservation District, whose farm is located 8 miles southwest of Beresford, South Dakota, practices deferred grazing on his bromegrass pasture with very good results. This method of pasture management gives the grass an opportunity to attain good growth prior to turning any livestock on it. By so doing a greater amount of forage is available for each animal, and in many instances a larger number of livestock may be grazed for a short period.

Here is the plan Mr. Odeen has used for the past two years with wonderful results: In 1940 and '41 the livestock was turned into the pasture late in the spring, between May 1 and June 1, and taken off near August 15. This allows for good grass growth in the early spring as well as giving the grass an ample chance for recovery and growth during the fall after a rather heavy grazing season.

This is a 10-acre pasture and Mr. Odeen grazes 16 to 20 head of livestock during the grazing period. When asked what gain he received on the cattle his answer was, "They really do good out here, and make wonderful gains, oh, say at least $1\frac{1}{2}$ pounds per day." By a little simple arithmetic we find that with a $1\frac{1}{2}$ pound gain per day per head, for 20 head during a period of 90 days we get a total of 2700 pounds of gain.

With the price of beef at $10\frac{1}{2}$ per pound this represents a cash return of \$270 total or \$27 per acre. Not a bad return for 10 acres of grass when properly managed. Also, when we realize that grass can be seeded on that land which does not lend itself to cultivation of crops due to erosion, we readily see that grass can be utilized as a good cash crop and at the same time we save our basic resource - the soil.

20 Districts Develop Educational
Calendars to Follow Coming Year

Educational calendars have been developed for the first twenty soil conservation districts in the state. The calendars outline as nearly as possible all the educational events to be held for the ensuing twelve months. These calendars have proven very helpful in the past for they are developed by the supervisors and executed by them in cooperation with the county agent and district conservationist. A typical calendar for 1942 is the one from the Silver Creek district. It includes:

Eleven meetings with cooperators,
Sixty-five meetings with school groups,
Two meetings with business groups,
Eight group planning meetings, and five others,
Ten tours with various groups,
Four demonstrations,
Six state-wide stories, one local story each week, and a Zephyrette four times a year,
Three exhibits and one radio program.

This calendar is not based on an optimistic dream of what the district may do, but rather upon the history of accomplishments during 1941. Last year this district held 51 meetings with an attendance of 2597; held three demonstrations and twenty training schools; released 43 news stories; had 59 entries in an essay contest; showed films or slides at 61 occasions; and showed one conservation moving picture.

SCS-CCC camps at Huron, and Fort Meade have been discontinued. Camps at Chamberlain and Alcester are in operation assisting five soil conservation districts.

A munition workers' slogan is, "A man who relaxes helps the Axis." Prevent erosion and conserve natural resources.

Tillage Done Right at Right Time
Proves to Be a Good 'Hopper Control

Excerpts from a pamphlet prepared by Gerald B. Spawm, Entomology and Zoology Dep't., S.D. State College, Brookings, SD

Certain tillage practices employed by farmers, if done at the right time, comprise one of the most important means of reducing grasshopper populations. In the light of present knowledge, these should be followed by the timely use of poison bait for the best results.

Experiments in the Winner-Reliance area on Boyd clay loam soils show that in fall tillage the following percentage of control, including mechanical destruction of eggs, is possible:

| | |
|---|----------|
| Double discing (one test plot) | 100.00 % |
| Regular listing (one test plot) | 100.00 % |
| Moldboard plowing | 97.45 % |
| One-way discing | 88.53 % |
| Single discing | 86.59 % |
| Sub-surface cultivation (duck-foot type) | 72.50 % |
| Sub-surface cultivation (duck-foot type) | 53.00 % |
| Sub-surface cultivation (straight blade) | 50.00 % |

In the same area spring tillage brought about the following percentage of control:

| | |
|---|------------|
| Sub-surface cultivation (duck-foot type) | 89.78 % |
| Single discing | 82.96 % |
| Regular listing | No control |

Experiments in the Hecla area on sandy soils gave the following control:

| | |
|---|---------|
| Moldboard plowing | 96.82 % |
| Sub-surface cultivation (duck-foot type) | 83.15 % |
| One-way discing | 72.66 % |
| Double discing | 71.35 % |
| Single discing | 51.09 % |

Nebraska District Boosts Corn Yield
\$2 Cents an Acre with Rows on Wobble

Contouring corn fields in Boone County, Nebraska, during the last crop year brought 82 cents more per acre to an insurance company and gave the tenants an extra \$1.22 for every acre of corn which they contoured. These figures represent averages for 23 farms where the tenants are cooperating with a soil conservation district, compared with averages for 25 of the company's farms where the tenants have not adopted conservation practices.

The 23 farms cooperating with the district had 1,308 acres of corn, all on the contour, which yielded 20.06 bus. per acre. The 25 farms not on the contour had 1,109 acres of corn which yielded 17.22 bus. per acre.

The average increase in income to the insurance company as a result of contouring was \$46.40 per farm, and to the tenant \$69.61 per farm. In the aggregate, the tenants cooperating with the soil conservation district had \$1,601 more to spend in the community.

In addition to this, the contour farmers have taken an important step toward meeting one of the problems of national defense--increasing production on the land we now have without depleting or destroying the soil. The larger crop provides more feed per acre for some of the needed types of livestock; in fact, it may even be measured in terms of increased meat production per acre.

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Tillage Done Right (Cont'd)

Proper tillage at the right time helps to reduce favorable egg laying areas. The choice of tillage methods employed by the farmer should be made only after consideration of at least these points:

1. Control of grasshoppers
2. Conservation of soil
3. Conservation of moisture
4. Control of weeds
5. Seedbed preparation

Winner-Dixon Project Report on
Studies; Will Serve as Guide for
Districts in Outlining Practices

Dan E. Cass, Project Manager of the Winner-Dixon Project, and Edgar C. Joy, Research Project Supervisor, have just completed the third year of evaluation work in that area. Interesting highlights from this valuable report are briefed in the following paragraphs.

CONTOUR FARMING. Yields of small grain show a 6% increase due to contouring. Likewise, grain sorghum listed on the contour showed an increase of 19%.

TILLAGE. Sub-surface tillage has demonstrated its value as a tillage method. The past year's results have produced yields equal to, or superior to, the best customary tillage practices. In addition, it is an effective method for killing weeds and preventing erosion.

SORGHUMS. Sorghums are replacing corn as a row crop because they are better for erosion control, more resistant to grasshoppers, and will better stand the hazards of droughts and winds.

DEPTH OF TOPSOIL. In 1940 the soils with deeper topsoil produced 90% greater yields than soils where the topsoil was gone. During 1941 the difference was only 59%.

GRASSES AND LEGUMES. Crested wheatgrass had become a popular grass for erosion control and forage production. It yielded 3300 pounds per acre, native hayland 940 pounds, and alfalfa 1780 pounds.

REVEGETATION STUDIES. Nearly all the existing grass stands were obtained of late fall or early spring seeding. Principal hazards of grass establishment are lack of soil moisture during seedling stage, root rots, grasshoppers, mid-season drought, lack of plant residue cover, and too loose seedbeds.

PASTURE STUDIES. The pasture treated with furrows did not show any advantages

in 1938 or 1939, but showed a 45% increase in yield of grass in 1940 and a 30% increase in 1941.

A summary of farmers' estimation of the relative value of different soil conservation practices was made on the farms of 36 cooperators on the Winner-Dixon Project for five years. Their opinions, after summarization, showed:

PRACTICES CONSIDERED EXCELLENT: Stock watering dams, management of crop residue, and grass seeding.

PRACTICES CONSIDERED VERY GOOD: Sub-surface tillage, controlled grazing, water spreading, and contour farming with correction buffer strips.

PRACTICES CONSIDERED GOOD: (Where the advantages exceed the disadvantages): Gully control, diversion ditches, pasture furrows, tree plantings, grasshopper control with tillage, early seeding and crop selection, and contouring with short rows.

PRACTICES CONSIDERED FAIR: Wind strip cropping, basin listing, pit cultivation, terraces, and use of legumes.

PRACTICES CONSIDERED POOR: Poison bait for grasshopper control, and grass seedings where no stands were obtained.

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Tillage (Cont'd from Page 6)

of the fact that simple control measures are available and practical.

To supply necessary information on methods of conserving soil and water so that the average farmer or rancher will be able to take advantage of the information and apply it to his own land.

To train farm leaders in the methods of combating erosion and to carry out concentrated programs of conservation on large acreages under a planned procedure under local administration.

UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

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Ross D. Davies, State Coordinator
-- Brookings, South Dakota --
Official Business

Mistakes in Land Use Following First
World War Must Not Be Repeated Now

In war times as in peace the conservation of soil and moisture is an important consideration for every farmer and rancher. The problem now is not to follow the mistakes in land use so common during the first world war. We now need to farm our land to produce as much feed as possible to supply the "food for freedom." And while we are doing this we have to keep that soil from blowing or washing away. Conservation methods will hold the soil in place and at the same time make it possible to meet the goals established on each farm in this victory campaign.

The major problems in the conservation program during war are:

To make farmers and ranchers aware of the erosion problem and cognizant
(Cont'd on Page 5)

Brown-Marshall District Supervisors
Sponsor Free Turkey Dinner for Members

As a means of celebrating completion of four years operation which they consider has been highly successful, supervisors of the Brown-Marshall district sponsored a free turkey supper at Hecla December 2 for farmers in the district, their wives, and some guests. County Commissioner John Forsting, State Legislator Roy Glover, representatives of the Soil Conservation Service and Forest Service gave talks. Supervisors in this district who are now starting on the fifth year of work are Frank Peser, Amherst, Frank Farrar, Newark, George E. Lane, Hecla, Anton Fangen, Houghton, and Merle Grupe, Britton. One accomplishment in this district to date is the record of 260 miles of shelterbelt and other tree plantings which is more than any other equal area in the state. They have a goal, however, of 1600 miles of plantings.